

Virginia Wildlife

APRIL 1980
\$1.00



Dedicated to the Conservation of Virginia's
Wildlife and Related Natural Resources

VIRGINIA WILDLIFE (ISSN 0042 6792)
April, 1980 Volume XLI, No. 4

COMMONWEALTH OF VIRGINIA
JOHN N. DALTON, GOVERNOR
Commission of Game and Inland Fisheries

COMMISSIONERS

J.D. Bowie, Chairman, *Bristol*; Frank F. Everest, Jr., *Alexandria*; Dolph Hays, *Arlington*; Allan A. Hoffman, M.D., *Danville*; James R. Knight, Jr., D.D.S., *Warsaw*; Walter J. Leverage, *Virginia Beach*; Richard T. Spain, Jr., *Waverly*; Richard E. Watkins, *Richmond*; Ralph L. Weaver, *Waynesboro*; George L. Sheppard, Jr., M.D., *Winchester*.

ADMINISTRATIVE OFFICERS

James F. McInteer, Jr., *Executive Director*; Richard H. Cross, *Assistant Director*; John P. Randolph, *Deputy Assistant Director*; James Engle, *Deputy Assistant Director*; Jack W. Raybourne, *Chief, Game Division*; Harry L. Gillam, *Chief, Education Division*; Jack M. Hoffman, *Chief, Fish Division*; John H. McLaughlin, *Chief, Law Enforcement Division*; Larry Hart, *Chief, Lands and Engineering Division*; Sam J. Putt, *Chief, Administrative Services*.

Virginia Wildlife is published monthly in Richmond, Virginia by the Commission of Game and Inland Fisheries, 4010 W. Broad St. All magazine subscriptions, changes of address and inquiries should be sent to P.O. Box 11104, Richmond, Va. 23230. The editorial office gratefully receives for publication news items, articles, photographs and sketches of good quality which deal with Virginia's soil, water, forests and wildlife. The Commission assumes no responsibility for unsolicited manuscripts and illustrative material. Credit is given on material published. Permission to reprint text material is granted provided credit is given the Virginia Commission of Game and Inland Fisheries and *Virginia Wildlife*, but clearance should also be obtained from contributing free-lance writers, artists and photographers to reproduce their work.

SUBSCRIPTIONS: One year, \$5, three years, \$12.50. Make check or money order payable to *Treasurer of Virginia* and send to: *Virginia Wildlife*, P.O. Box 11104, Richmond, Virginia, 23230.

Observations, conclusions and opinions expressed in *Virginia Wildlife* are those of the authors and do not necessarily reflect those of the members or staff of the Commission of Game and Inland Fisheries.

Special Second Class Postage paid in Richmond, Virginia.

Features

- 4 A TURKEY AT LAST, by Durwin Elliott
There's Only One Way to Cure Turkey Fever
- 6 WHEN THE BOUGH BREAKS, by Mary Stevens Jones
The Trials and Tribulations of Bird Families
- 8 KERR'S GIANT CRAPPIE, by Gerald Almy
This Southside Lake Offers Great Crappie Fishing
- 11 THE DEVIL'S MARBLEYARD, by Robert E. Donovan
This Rock Formation Has a Special Beauty
- 14 STRIPER SLEEPER, by Buck Snellings
Lake Anna is the New Striper Hot Spot
- 16 THE BARKING TREEFROG, by Charles R. Blem and M.A. Miller
A Look at a New Virginia Resident
- 18 I KEEP GOING BACK TO BIG RUN, by Gerald Almy
Trout Fishing is a Special Outdoor Experience
- 24 SUPER SUNFISH, by Mitchell D. Norman
The Redear is an Under-Utilized Panfish
- 26 FACE TO FACE WITH THE EAGLE, by Craig Koppie
The Chesapeake Bay Hosts a Growing Eagle Population
- 33 IN NATURE'S GARDEN, by Elizabeth Murray
The Wild Geranium
- 34 BIRD OF THE MONTH, by John W. Taylor
The Rose-breasted Grosbeak

Departments

- 3 Letters/Editorial
- 21 Growing Up Outdoors
- 22 On the Waterfront
- 29 Outdoor Notebook
- 32 It Appears to Me

Staff

HARRY L. GILLAM, *Editor*
MEL WHITE, *Associate Editor*
SANDRA COLEMAN, *Assistant Editor*
ROBIN SHARPE, *Art Director*
CARL "SPIKE" KNUTH, *Artist and Photographer*
F.N. SATTERLEE and J.N. KERRICK, *Staff Writers*
JO ANN AGEE, *Photo-type Composition*

COVER: Sauger, by Spike Knuth, Virginia Game Commission, Richmond, Virginia

Letters

SORRY!

I recently read "Stretch Your Season" by Bob Gooch. A friend and I decided to drive to the nearest preserve and give it a try (Back Creek, Hillsville). After a long drive, we were sorely disappointed to learn that the owner not only didn't have a preserve, but hadn't had one for some time! Was the article that old?

Alex Vonover
Vansant

It isn't unusual for us to hold articles for some time. The magazine business requires that we schedule features very far in advance. In this case, we do apologize for the inconvenience. In the future, we'll try to check information that could change. —Asst. Editor

RIVER SOURCE

I used to live in and often visit Bedford County, so read with interest "Misty Blue Mountains" in your January issue. However, she is incorrect about the Little Otter River. Although Big Otter River is born on the slopes of the Peaks of Otter, Little Otter rises south of a ridge which separates the two streams. They join some ten miles southeast of Bedford and their waters flow into the Roanoke or Staunton, east of Altavista and eventually reach the Atlantic via Albemarle Sound in North Carolina.

M.M. Scott
Falls Church

We had several letters pointing out the mistake. All of you have a sharp eye. —Asst. Editor

SATISFIED READERS

My mother paints, not for profit, but as a hobby and gives the finished products to family, friends and neighbors. Many of her wildlife ideas come from *Virginia Wildlife*. We have been receiving your magazine for several years and we think your articles, as well as pictures are super! Thanks very much for a wonderful magazine.

Mrs. R. M. Farley
North Tazewell

MORE ON CAVES

We were delighted to see Gary Gaston's article on caves in your October issue. Your recognition of Virginia's underground wilderness will undoubtedly aid us in our efforts to protect this valuable resource. By following the axiom "Take nothing but pictures, leave nothing but footprints, kill nothing but time," visitors to caves can do much to conserve our dwindling cave resources. If anyone would like to ask about caves or the laws protecting them, the Cave Commission is glad to help. Write: Virginia Cave Commission, P.O. Box 7007, Richmond, Virginia, 23221.

Robert W. Custard
Virginia Cave Commission

Editorial

RETURN OF THE CANE POLE

Fishing is often portrayed as the height of laziness, the perfect antithesis of expending energy. Today, however, the sleepy individual sitting on the stump with cane pole and bobber is hard to find. At least until the last couple of years, we saw a race to more powerful boats and bigger cars and trucks with which to pull them. Fishermen roamed at will, traveling two or three hours on the highway to fish the waters with the hottest reports that week. Fishing might be undergoing some radical changes in the next decade.

Fishing license sales nationally are declining. It is plausible to assume that the casual fisherman who dabbles a line while the family picnics is the one no longer buying a license.

The fisherman today faces many pressures. Inflation will bring the price of a state fishing license to \$7.50 beginning in July. Gasoline for an outboard at \$1.25 per gallon, plus the same for the towing vehicle, takes a good bite also. Tackle prices have jumped phenomenally as have the cost of boats, motors and vehicles. Tight credit and high interest are also serious considerations. At the same time, he faces soaring increases in home energy costs, commuting costs and in the prices of most goods and services used in the home.

Urban pressures like development, lack of parking and litter problems have closed many potential fishing sites. Siltation from excessive runoff, and channelization to accommodate same, have destroyed the fish habitat in most in-town streams. Little lakes that used to be popular fishing destinations have largely been deserted in favor of the glamour of big reservoirs.

In the rush to accommodate the well heeled fisherman, bank fishing spots, piers, small lakes and even johnboat rentals received scant attention. Thus, it is small wonder that those who relied on these facilities felt left out.

But that is changing. Smaller motors are again in vogue and smaller cars can only pull smaller boats. With the high price of gas, fishermen are seeking places closer to home. Anglers who used to flock to salt water are looking at nearby freshwater prospects. Hopefully, the Game Commission can help meet this need with cooperative agreements making more small fishing lakes and water supply reservoirs available to anglers. Sites of this type are valuable for family recreation. They give adequate opportunity to train the young fishermen in the basic art of angling. Disabled persons need easily accessible bank fishing sites.

Who knows! If gasoline rationing comes, we may all be grateful for a place to sit on the bank and fish.



Illustration by Diane Higgason

A TURKEY AT LAST

FOR THOSE STRICKEN WITH TURKEY FEVER,
THE WAIT IS THE HARDEST PART.

BY DURWIN ELLIOTT

I was just emerging from under a low-hanging hemlock when I heard him for the second time — *Gobble — Gobble — Gobble*. He was closer than I thought. I was so unnerved by the thought of his seeing me I dived behind the nearest stump without regard for sound, which was considerable in the dry leaves.

I lay behind the stump, hardly daring to peep over the top through the eye hole in my headnet. I was afraid I had blown my long-awaited opportunity. I finally eased the gun over the top of the stump, just in case, and waited with the eternal hope of the turkey hunter.

This was my sixth spring of turkey hunting. Although I had had a few successful experiences in terms of birds heard, called and even shot at, my score for birds brought home still stood at 0.

It was a Saturday in April, about 9:30 a.m. I had first heard the turkey the previous Monday, just at the break of day, but today he hadn't gobbled until 9:05 a.m. (At least I think it was the same turkey.) On the previous Monday, I had arisen at 2:45 a.m., driven to my hunt area in Grayson County, hiked in, and heard the gobbler. I had gotten about halfway to him when some dogs started barking where he was gobbling. They must have jumped a deer near where he was, or they were actually after him. Anyway, I didn't feel I would hear anymore from him, and I started out of the woods at a trot. When I got to the car, I changed from camouflage to school clothes and after a 1½ hour drive, was at Watauga High School, Boone, N.C., where I teach, right on time (8:00 a.m.).

I had been following this routine on alternate mornings since the season had opened in the middle of April, and this was the first gobbler I had heard.

I returned on Wednesday and waded through about four inches of fresh snow, but I heard nothing. I wasn't overly discouraged. On Saturday morning, I was up at an ungodly hour and was on my way to what I hoped would be a duel with the "forest king".

When I had heard him on Monday, he was on the ridge opposite to the one I usually go in on; therefore, I crossed over and went to his ridge.

As the day started to break and bird chirpings increased, my expectations soared once again, but no gobbler sounded off to guide me in the right direction. I decided to move up the ridge, calling periodically as I went. I saw some scratching and manure but no turkeys. Still the day wasn't a waste; for on my trip up the ridge, I had been in contact with eleven different grouse, either drumming or actual sightings. I crossed over and came back down the opposite ridge toward the car and was in contact with five more grouses — a total of sixteen on two adjoining ridges. In the fall during peak populations, that would have been great. In spring, during low population densities, I thought it was tremendous.

I called intermittently on the return trip and again got no response. It was nearly 9:00 a.m. when I arrived at the last point before my descent to the car. I was directly across from where I had heard the turkey Monday and from where I had been at the crack of dawn. I decided to stop and call for a while.

I found a comfortable place and let go with four or five snappy yelps from my "Lost John" caller. I waited about five minutes and tried again; about three minutes later, I tried again.

This time it brought a response. All the way across the road on the other mountain I heard a gobble. Immediately, I was on my feet and running toward the sound. As I ran, I said a prayer of thanks for having been given one more chance.

I ran all the way down my mountain and about 1/3 of the way up the turkey's mountain before I was completely out of breath. I selected a little depression to call from, but I got no response. I continued on, and about 2/3 the way up, I heard him.

It was nearly fifteen minutes after my noisy hiding attempt, and I had almost given up hope when I heard him again. I was tremendously relieved to know I hadn't frightened him and that he was still anxious to meet the "hen" he had heard in the leaves. To assure him the hen was still ready and willing, I sent forth three of the most seductive yelps I could muster. He didn't respond immediately, but in about a minute, he gobbled again. I answered with two quick yelps and then I laid my call aside.

Nearly five minutes passed, and I was beginning to think that I had probably scared him when he gobbled right in front of me. I became so excited that all I could hear was blood pounding in my ears and the hammering of my heart.

I can usually hear an animal before I see him whether it is a deer approaching my bow stand, a squirrel digging nuts, or a fox answering a predator call. This time, however, my hearing was neutralized by the sound of my heart. I was, nevertheless, striving with all my senses for an indication as to the turkey's whereabouts.

Suddenly I caught movement out of the corner of my eye. I turned my head ever so slowly and beheld a sight I will never forget. Coming toward me, almost like a shadow flitting between the trees, was the light blue head of a gobbler. His neck was stretched high, and every muscle appeared to be tensed and ready for action as he slowly egg-walked toward my hiding spot. At about twenty yards he walked behind three large trees. That was the opportunity I had been waiting for. I shifted my gun. He must have seen the movement, for when I next saw him, he was racing back up the hill from the direction he had come. I pulled the barrel even with his outstretched head and yanked the trigger. He disappeared from sight, but I could hear him trashing in the leaves. I jumped up and tried to sprint toward the spot, but my whole body had gone numb from lying in a very cramped position. I half stumbled, half crawled to where I had last seen him. There he was — shot in the head and still flopping, but I knew it was over.

I felt remorse for having taken one of God's most magnificent creatures; yet, I felt very elated and thankful.

After six hard years of getting up at 3:00, practicing my calling at all hours, nearly drowning trying to cross a rain swollen river to get closer to a gobbling turkey, buying some tame turkeys so that I could have some true-to-life turkey sounds to practice with, I had achieved my goal. I had found, called up, and bagged a mature Tom turkey unaided.

At the check station, he weighed fifteen pounds and one ounce and sported a 7⅞ inch beard. I'm sure he didn't rank with the largest ever taken out of those hills, but I'm sure there has never been one brought out that was more appreciated.

When the Bough Breaks

Birds, like people,
often suffer
broken homes.

by Mary Stevens Jones

That birds as well as people have their problems, trials, tribulations and sorrows has been very forcibly impressed on us recently as we have observed bird family life on Jameson's Hill in Culpeper.

In some households all seems to go well. Within a few months time courtship leads to marriage and setting up housekeeping; then to nesting, brooding and raising a family. Parents appear to be good homemakers, good providers, devoted mates, and so ecstatically happy they tell all the world about it in rapturous song. We like to think they sing not just because they're happy but because they're thankful, too, and mindful of the blessings showered upon them by their Heavenly Father and their good people-neighbors.

It is seldom that we see tragedy strike a bird family with whom we are personally acquainted. But within the past two weeks it has struck twice, with mortal blows dealt to two families of our feathered friends. We have noted that, although the bereaved birds — in both cases, parents — evinced distraction and distress, they were not broken by the tragedy. Rather, taking a positive view of the situation, they have picked up the broken threads of life and made a brave, fresh start. Courageously whistling or singing while they worked, they have cheered one another and have not injected a single inharmonious note into the medley of birdsong on The Hill.

As some Culpeper bird watchers know, last was the third consecutive summer that orioles — both orchard and Baltimore — have nested on Jameson's Hill, with Baltimore orioles fairly numerous. During the month of May, the spectacularly brilliant orange and black birds serenaded us continually with their joyous song and delighted us with frequent flashy appearances in the tops of trees. Every evening at dusk "the fiery hang-nest" visited our tall walnut trees; fed on juicy morsels much to his taste, sometimes hanging almost upside down as he nibbled on the under side of the leaves; then sat in his leafy choir stall and sang even-

song. The orioles made the soft May evenings something special — and splendid. We wondered where they hung their basket nests.

Then one evening in late May the Meredith Scotts pointed out to us a hanging grassy pouch near the end of a drooping walnut bough at their Blue Ridge Avenue home. As we looked, Lord Baltimore, wearing the proud colors of the colonists of Maryland, nose-dived down into the deep pocket-nest to feed his mate. Lady Baltimore, her breast a little less brilliant shade of orange and her upper parts olive rather than glossy black, followed her mate as he emerged from the nest and across the yard to another tall tree. A Baltimore oriole's nest on Jameson's Hill — what a thrill! We had high hopes of seeing the baby birds when they should begin to fly from their cradle. We hoped they'd come back to The Hill next year and raise a family of their own, as, no doubt, their parents also hoped.

A few weeks later, we had a terrific wind, rain, and electrical storm. The wind snapped off the walnut limb holding the orioles' nest, and it hit the ground with force. Two tiny birds, sans feathers, opened their gaping mouths expectantly as Meredith rescued the branch and wired it onto the tree in a desperate attempt to save the tiny lives. All the while the parents were flying frantically back and forth, giving evidence of extreme agitation and concern.

The baby birds did not live, injured, perhaps, by the fall. Soon the parents abandoned the nest.

They had built a good nest — strong, finely woven, softly interlined, of superb craftsmanship. Firmly attached to the bough by its rim, the six-inch-deep pocket would have swayed safely in the stiffest wind. Its fall could not be laid to faulty workmanship, but only to the forces of Nature over which neither man nor bird nor beast has control. Secure in this knowledge, the orioles have accepted their fate and are planning for the future without looking back with self-reproach, recrimination or bitter grief.



Young Jim Green Fore has among his trophies the graceful nest wrought by two beautiful birds — Maryland's "fiery hang-nests." It is an exquisitely interlaced pocket, woven with strips of plant fibers, fine grass, threads, and the silky white hairs of the Scotts' Poodle, Ivar don Kenilworth of Ensarr.

The female is said to use a shuttle motion with her bill as she skillfully weaves the pouch-like nest. The round rim is finished off with a stitched border through which twigs are wrapped around and around so as to attach it securely to the swinging bough. . . "Rockabye baby, in the tree top. When the wind blows, the cradle will rock. When the bough breaks, the cradle will fall. Down will come baby, cradle and all."

And so it happened, sad as it may seem. For into each life, whether bird or beast or human, some rain must fall.

The orioles were quiet when compared to the past. Occasionally, we heard their sweet, rich notes in the distance. If the orioles follow their last year's pattern, they'll reappear in August, ready for the fall migration, and for a brief period they'll sing with the exuberance of spring. It is well worth waiting for.

Another heartbreaking tragedy concerned a pair of cardinals on West Asher Street.

About the same time the Scotts' orioles, Maryland's state bird, were so happily expectant while Lady Baltimore was sitting in her ill-fated walnut-tree nest, a pair of Virginia's state birds built a nest in a most unlikely place — the wisteria vine on Nan Frazer's front porch. Only six or seven feet from the ground, the nest was barely four feet from Mrs. Frazer's front door that swings open and shut dozens of times a day to friends visiting this hospitable home.

It was hard to believe that Mr. and Mrs. Redbird, not as gentle or as sociable as their friendly cousins, the catbirds, would choose such a public place to reside. Their liking for the landlady, however, outweighed the disadvantages, and they went about their

business of building a sturdy nest in the trellised vine. Every time the door opened or closed, they flew away, but were right back with more building materials and more stick-and-grass construction work.

The lovely Lady Virginia laid three beautiful eggs and began to sit on them. She flew off every time a visitor came or went but, turning a trustful eye on Mrs. Frazer, she sanctioned her coming and going freely without moving from her nest. Visitors learned to tread softly and open and close the door quietly in deference to the rosy-gray lady's nerves. Lord Virginia kept a watchful eye and gave his lady tender loving care.

Then one morning, Mrs. Frazer opened her front door to find tragedy had struck during the night. Birds, eggs, nest and all were gone. Where or why she does not know. There was not a trace of the nest or eggs in sight. The birds were flying distractedly to and fro.

Was a marauding cat the villain? We hate to accuse any trespasser without evidence.

Or did the prospective parents decide they could never raise and discipline children properly with so many disturbances, interruptions, and perhaps interference, from nosy neighbors? Maybe they decided to break up housekeeping in the wisteria vine and resort to some higher and more pleasant, as well as more private, situation.

They still frequent the premises, however, and seem to bear no ill feelings. When Mrs. Frazer opened her front door recently, Papa Cardinal was on the front door step. The exchanged greetings before he flew away.

Although we cannot fathom the secrets of our bird friends we can learn many lessons from them. And the more we learn of them, the less we take them and their priceless gifts of beauty and song for granted. Perhaps, too, the more interested we'll become in giving them care and companionship in exchange for the good things they so freely give us.

KERR'S GIANT CRAPPIE

**For both black and white crappie,
this Southside reservoir is
hard to beat.**

by Gerald Almy

It's not surprising that crappie rank among the most popular sportfish in Virginia, perhaps even surpassing the largemouth and bluegill as the number one quarry in the state. They are distinctly handsome fish, both in the white variety, with muted dark bar markings spaced evenly along pale flanks, and the black species, whose black flecks on a silver body give rise to the common nickname, speckled perch.

Both species are abundant in lakes, rivers and ponds throughout the Old Dominion, often in extraordinary numbers. In impoundments such as Anna and Occoquan and many farm ponds, knowledgeable crappie fishermen can go out and catch stringers of the speckled perch stretching from head to toe on just about any day they choose. More important still, even rank novices can venture out during spring's shoreline spawning migrations and catch enough crappie to fill a cooler or two.

But where do you go if you want to catch big crappie? Crappie that not only taste good, but also put a strong bend in your rod and pose a distinct challenge

in the catching? After fishing for them in many lakes and rivers throughout the state, there is one place that stands out in my mind above all the rest for truly huge crappies, and that's Kerr Reservoir, otherwise known as Buggs Island Lake.

Kerr is quite a drive for many residents in the state — two hours or more from Richmond, four or five from northern Virginia. When they travel this far, most anglers have big fish, like stripers or largemouths, on their mind. But for some of the best crappie fishing in the country, take along a few ultralight spinning rigs and cane poles next time you trek to Kerr in the springtime. You won't regret it.

The fish grow to extraordinary dimensions in this sprawling 48,900 acre impoundment. Crappie of three to four pounds are taken every year from the lake's fertile waters; two pounders are common-place. On a good day in spring you're quite likely to latch onto a citation fish over 2½ pounds. Whether you succeed in wrestling these heavy, paper-mouthed scrappers out of the dense brush and into the boat is another matter entirely!



A canepole helps Joe Canole land a two pound crappie.

The average crappie at Kerr should weigh in at about 1½ pounds. Few places in the country, let alone the state, offer this quality size of fish.

Both black and white crappie inhabit Buggs Island. The predominance of one or the other seems to depend at least partly on the clarity of the section of lake you're fishing. Blacks prefer slightly clearer water; whites do well in more turbid portions of the lake. However, I've often caught the two bunched up side-by-side, so this is no hard and fast rule.

It's easy to tell the two species apart by their markings and the number of spines on the dorsal fin. Black crappie have seven to eight spines on the dorsal, whites only have six. Blacks have a smooth, "speckled" look, while whites have dark vertical bar markings along their sides.

Spawning on Kerr begins in March and may continue into late May. Blacks precede the whites by a slight margin, but both species are generally found on the beds at the same time for most of the early spring.

Spawning time is when the big speckled perch are

most vulnerable to the angler, and it was just such a time when Mickey Johnson and I drove to the impoundment from his home on nearby Lake Gaston recently to have a go at the crappie. It had been a warm February, and reports were already coming in of fish starting to move up out of the depths and make the first tentative motions towards the shoreline for spawning. If luck was with us, some of the fish would already be up in the brush-clogged shallows, fanning out their beds and depositing eggs amid the flooded willows and gums.

Spring is not only the most productive time to fish Kerr and other lakes for crappie, it's also the most exciting. With long, lithe cane poles or fly rods, you probe the shorelines, dapping a minnow or jig with a short length of line into hidden crevices amid the brushpiles and flooded timber, hoping to chance upon a crappie hovered over its spawning bed. When one strikes, it's no mean task to snake him — thrashing all the while — out of this thick cover, especially if he happens to weigh two or three pounds! And at Kerr,

it's quite possible the spawners will weigh this much.

Some people frown on the use of such unsophisticated tackle as the cane pole, but it has proved itself over time as the most efficient gear there is for this type of fishing. True, a long fly rod can be substituted for the bamboo pole, but don't take a good graphite or expensive fiberglass stick up into these bushes. The crappie often venture well back into the tangles and snags, and it's much more comforting to know that you're only out three bucks if your pole snaps on a wayward branch, rather than \$150 if your favorite graphite rod catches on a snag as you thread your way into the spawning grounds.

When Mickey and I arrived at the lake and unloaded the johnboat and 3½ hp kicker, the water looked low. It wasn't quite as warm as we'd hoped, either. The thermometer dangling from a string read 59 degrees — not quite up to spawning levels crappie prefer in the low 60's.

With these slightly discouraging signs, we decided to try blowdowns and snags close to the shoreline, but not quite back up in the two and three foot shallows where we would have fished if the crappie were actually mating. Mickey knew of a good sunken tree in deep water near shore and we made a beeline for it.

We figured the fish would be massing near the banks, their eggs ripening from a pale yellow to a deep orange color by the day. But with the water temperature what it was, they wouldn't quite be ready to breed yet. Often during this pre-spawn period you can find the crappie in such locations, hovering expectantly as they await the final rise of a degree or two in temperature that sends them in for the mating ritual.

The water measured eight feet deep at the lower end of the fallen tree and became increasingly shallow towards shore. We set our bobbers at five feet and flipped the lip-hooked shiners out with the limber cane poles. Action came quickly as Mickey's cork disappeared and his cane pole arched into a deep bend. It was a bright male black crappie — the strongest fighter of all among the speckled perch clan. It took several minutes for him to wear down the 1¼ pound fish and work it into the boat.

Soon after that I had my preference for light-wirehooks endorsed. A fish took my minnow and, before I could work it out of the tangles, wrapped the line around a log and shook free. With a slow, steady pull, the 10-pound line held and the No. 2 hook bent loose. A quick squeeze between thumb and forefinger and it was ready for another minnow.

The next time my luck improved. A fat hen fish sucked in the bait and I steered her clear of the obstructions and into the boat. She was heavy with eggs, and we estimated her weight at just under two pounds.

By mid-afternoon we'd wrestled 40 crappie to the boat, 30 of which we kept for filleting. That's a modest number compared with what we could have caught on some lakes, but consider the weights. One of the fish weighed two and three-quarter pounds; several others were right at two pounds on the hand scales. The rest of the fish on the stringer ranged from one to one and three-quarter pounds. It was a good day, even for Kerr, and as we sliced the flanks off the delectable fish we knew there would be fine eating in store for many days ahead.

Action such as this typically begins on Buggs Island in late March, unless it's an unusually cold spring. On northern lakes the best spring crappie fishing begins in April. Water temperatures in the upper 50's is the key. Find this mercury reading in the shallows and you should find crappie either along the banks or just off them, congregated around fallen trees, brushpiles, or dock pilings. The fish will be spread out within striking distance of land along the lake's 800 miles of shoreline, ready for that final surge of warmth that triggers the spawning instinct.

Look for the crappie in five to fifteen feet of water at this time. When they are in this deep, open water, spinning gear and four to six pound line is practical. The cane pole will also work well. Marabou jigs in 1/32 to 1/8 ounce sizes, small spinners, spoons, white spinnerbaits, and grubs will all take fish, but no artificial surpasses a one or two-inch lively minnow fished beneath a bobber.

As crappie make their final movement into the shallows for spawning, canepoles or long fly rods with a short length of line are the best choice of equipment. You don't need much line. In fact, too much is a hindrance. The fish will spawn in water measuring one to four feet deep. To get your bait or jig back up into the brushy shallows where the crappie go, only three to five feet of eight to twelve pound mono is required. This way you can flip or thread the minnow back up into the tangled spots where the fish spawn at the base of willow and gum trees and in hidden pockets in the gnarled root structures.

It's heady sport wrestling a big, egg-laden hen fish or a strong male out of these tangles, and you're sure to lose your share in trying.

Once the crappie move out of the shallows after spawning, deepwater fishing is the name of the game on Kerr and most other lakes in the state. There are several tactics for this type of angling that are effective. One method involves drifting in deep, open water with minnows adjusted at various depths from eight to twenty feet, to try to locate roving schools of fish. Drop a buoy marker over when you catch a fish and adjust the other floats to the level at which the fish struck.

Another approach during summer is to fish the bridge pilings. These offer structure for the fish to hover next to, deep water where the creek or river channel flows through, and relief from the bright sunlight. Try minnows and jigs at various depths around these structures until you pinpoint a school, then stick with them.

A third strategy is to plant private brushpiles made of cedar or willow trees in deep water with cinder blocks and wire. Mark the location of the structure in your mind's eye by triangulation with landmarks on shore, then return to it in a few months after it's had time to "age" and attract minnows and gamefish. Such private crappie holes can sometimes yield fish in enormous quantities right through summer and winter.

But for the most exciting crappie fishing of all, visit Kerr in the sprintime when the willows are taking on their first hint of lime-green color and the speckled perch have migrated to the shallows for the rites of spawning. Wrestling a two pound spec out of a gnarled tangle of sunken brush and threatening overhead branches is a sport you won't soon forget.



The rocks provide ample opportunities for climbing. The boulders average five to ten feet in diameter.

by Robert E. Donovan

The Devil's Marbleyard

**In the heart of the Blue Ridge lies
this beautiful and unique rock formation.**

Rockslides are also a feature of the Marbleyard.



The Marbleyard has enough mysterious passages to satisfy any budding explorer.

My daughter and I had been hiking for several hours in the mountains southeast of Arnold Valley in Rock-bridge County.

We had been hiking along the Gunter Ridge Trail and we were looking for a rock outcropping or clearing from which to get a better view. And what we found was more than we had bargained for.

Suddenly the mountain just seemed to fall away, and we found ourselves at the top of a thirty or forty foot sheer drop. Below the drop was the biggest rockslide I had ever seen in this area. What we had stumbled upon was the very top of a rock formation known as the Devil's Marbleyard. The formation is about three hundred yards long and about one hundred and fifty yards wide at its widest point. Aside from the size of the slide itself, what makes this formation so spectacular is the size of the individual rocks. I have seen many rockslides in the mountains of central and western Virginia. Some of them are quite extensive. However, in most cases the individual rocks in the slide average about six to eighteen inches in diameter. But this is not the case in the Devil's Marbleyard. The boulders in this formation run about five to ten feet in diameter, and a number of rocks with maximum dimensions of thirty to forty feet can be found.

The size of the rocks in the formation gives the Marbleyard several interesting characteristics. For one thing, the rocks are so big and are deposited in such a random manner, that there are cracks, crevices, and passage-ways everywhere leading down into the formation. Some of these openings are big enough for a person to climb, crawl, wiggle, or squeeze down into. It's possible to go into the slide in one place and to crawl out another opening somewhere else.

In addition to the possibilities for exploration, the size of the rocks gives the Marbleyard another interesting characteristic — it is virtually devoid of any large size vegetation. Any soil building materials such as leaves or erosion products that might wash or blow into the Marbleyard find no place to collect and presumably are washed deep into the large openings between the rocks and may even be scoured from there by runoff under the rocks. The only exception to this no vegetation rule is a small oasis of battered trees (mostly pines) that have managed to secure a tenuous foot hold near the center of the formation.

The Marbleyard is shown on the U.S. Geological Survey's 7½ Snowden quadrangle. That map has tick marks on it for several coordinate systems, two of which are the Universal Transverse Mercator (UTM) and the World Position Refer-

ence (WPR) systems. The UTM coordinates of the Marbleyard are approximately 3560 and the WPR coordinates are approximately N37°35' W79°28'.

For those interested in visiting the Marbleyard, the quickest way to get there is to take Belfast Trail from Route 781. Visitors coming from the south, east, and northeast will probably find it most convenient to take the Blue Ridge Parkway to Petites Gap at milepost 71. Here Route 781 intersects the Parkway and from its point of intersection, Route 781 winds its way down into the draw of the East Fork of Elk Creek. About four miles from the Parkway the entrance to Belfast Trail can be seen on the right side of the road. It is clearly marked with a sign.

Visitors coming from the north and west will probably find it best to cross the James River on Route 759 at Natural Bridge Station. Approximately two and a half miles after crossing the river, there is a three way fork in the road. The left fork is Route 781, and the entrance to Belfast Trail is about one mile from the fork on the left side of the road. (When coming from this direction, if you pass a sawmill you have gone too far! Go back about one hundred yards.)

For those interested in a longer hike than the relatively short walk up Belfast Trail, the Marbleyard can also be reached by starting north on the Appalachian Trail from Petites Gap or on the Balcony Falls Trail starting in Arnold Valley.

A visit to the Devil's Marbleyard can be an interesting and enjoyable family outing. When approached by Belfast Trail from Route 781, the hike is a fairly easy three or four mile round trip. Scrambling around on the boulders, however, is somewhat more vigorous exercise. Wear shoes or sneakers that will give good traction and avoid the rocks when they are wet or slippery. There are numerous places in the Marbleyard where a careless rockhopper could take a ten or fifteen foot spill, and several places where one could fall further than that. In fact, the area gets some use during the summer as an instructional area for mountain climbing and rock climbing groups. So be careful.

For those unable or not inclined to make the climb up to the Marbleyard, the formation can be seen from Route 759 in Arnold Valley and from several places along the Blue Ridge Parkway between mileposts 75 and 76. However, both of these roads are so far from the Marbleyard that it is difficult to appreciate the formation from these vantage points. The only way to appreciate it fully is to hike in and climb around on the rocks yourself. Give it a try. You'll find it to be a day well spent.

Striper Sleeper

by Buck Snellings

Though now under-utilized,
Lake Anna is emerging as the
state's striper hotspot.



Umph. I grunted as the fish slashed at the deep running lure and missed. Somehow the strike had felt strangely different from that of the largemouth bass that we had been catching with some degree of success, and I quickly reeled the crank-bait to the boat and prepared to cast again.

I was fishing Lake Anna with full-time guide Bill Mathias and noted outdoor writer Angus Phillips of *The Washington Post*. Ten hours of serious fishing had yielded a like number of good keeper largemouths, a good day on any body of freshwater, especially for mid-October.

The warm autumn sun was sinking as I mechanically made the second cast in the direction of the 'mystery' strike, but an immediate, solid hook-up quickly brought me back from my reverie. Of course I knew that the lake had been stocked with good numbers of the treasured striped bass, but they had been so hard to come by — no one fished exclusively for the fine game fish — no one really knew how to fish for this relative newcomer to our watery arena — but there it was, my first Lake Anna, land-locked striper.

The handsome, silver-sided fish was just shy of the 20-inch minimum size, so after admiring it briefly we returned it to the protective depths of the lake.

Tired casting arms were soon forgotten as we turned our combined efforts to discovering whether more of the striper's brethren were about. Our feverish effort rewarded us with the kind of fishing that memories are built upon and friendships cemented.

We caught them on crank-baits, we caught them on hammered spoons, and we caught them on buck-tailed jigs. For 30 minutes we reigned supreme in the age-old piscatorial battle.

The stripers exited as unceremoniously as they had appeared. When it became apparent that we would not find them again, we relaxed. We did not mourn their departure, rather we took the opportunity to extol their virtue and the wisdom of the Virginia Commission of Game and Inland Fisheries for providing this bonus fishing.

While the striped bass will not reproduce in this controlled environment, they survive well and their growth rate is phenomenal, affording anglers a revered opportunity to harvest a truly great sport fish sorely lacking on the saltwater scene in recent years. Ten-pounders are coming from the lake now, and one fisherman caught one weighing almost 17 pounds, according to Bill Mathias.

The fish we caught and released were young adults maturing from fingerlings raised and transplanted from Virginia's Brookneal hatchery. Virginia's striped bass program is among the most successful in the nation.

Smith Mountain Lake presently boasts of being the king of striped bass impoundments in the state, but Lake Anna has the potential to rival Smith Mountain Lake for that title.

Hundreds of thousands of stripers have been transplanted since Lake Anna's conception and it is a matter of record that a multitude have survived and await harvesting.

Anglers learning the habits of the land-locked striper will surely have discovered a bonus form of fishing.

For the unfamiliar, Lake Anna is located South of Fredericksburg, West of Interstate 95. Take the Thornburg exit off I-95 about 10 miles South of Fredericksburg, go west on Route 606 to Route 208 and continue directly to the lake.

There are several marinas on the lake, primarily on Routes 208 and 522. Lake Anna Marina and Sturgeon Creek Marina were two of the first.

There is a campground near the lake and a state park underway. Also, ample motel facilities are available in Fredericksburg, approximately 28 miles away.

An invaluable aid for the Lake Anna fisherman is the structure fishing map printed by the Alexandria Drafting Company. These maps are available at most local sporting goods stores.

Central Virginia's Lake Anna has already given up an abundance of largemouths and striped bass, and numerous pickerel. If you have not already tried this large (13,000 acres) impoundment, by all means do so — you owe it to yourself. This could be Virginia's hottest lake.

The growth rate of stripers is rapid, though they don't reproduce in the lake. Ten pounders are common, with at least one seventeen pounder reported.

The Barking Treefrog

This large frog is a new resident of the Old Dominion.

by Charles R. Blem and M.A. Miller

Among the amphibians found in Virginia, one of the most interesting and beautiful is also one of the newest additions to the herpetofauna of the state. Prior to 1889, the barking treefrog, *Hyla gratiosa*, was apparently present only in Florida and adjacent parts of Georgia. Then, for reasons as yet unknown, it began to expand its range. Gradually it moved into Louisiana, Alabama and South Carolina. By the 1930's it had appeared in North Carolina and was found in Kentucky and Tennessee by the mid-1960's. It apparently arrived in Virginia sometime before 1959 and was first noticed in far southeastern Virginia. It has since been found at several sites in Chesterfield and Prince George Counties, suggesting that this species continues to disperse northward on the coastal plain of Virginia. In addition, a successful population has been established artificially in New Jersey, and it now appears that this frog may eventually colonize most of the eastern seaboard.

The barking treefrog is the largest native North American treefrog, reaching snout-vent lengths of 2-2½ inches. Its back is usually a bright green, although the color can change to dark brown, with many round, dark markings. There is often a light stripe along the side and the belly is white or cream. Like most treefrogs, it possesses large, oval toepods and can climb high into trees. It breeds throughout the summer and during this time the males emit the characteristic call which gives the species its name. At a distance the usual call note resembles the sounds of a barking dog. Our observations indicate these sounds are audible up to one mile on quiet nights. Colonies may consist of a few pair or as many as hundreds of individuals. As several other species of frogs are usually found calling at the same breeding sites, the din of chorusing frogs around a substantial colony may be nearly bewildering.

In Virginia, breeding sites are located around swampy areas, small ponds and sometimes near streams. It lays eggs singly on the bottom of the chosen pool and the tadpoles require 40-70 days to transform to small frogs. Adults and young spend the winter in dormancy while buried several inches down in leaf litter or sand. The first warm rains of February or March will arouse them to return to breeding sites.

At some locations in the southeastern United States, barking treefrogs are known to hybridize with the more abundant, smaller, green treefrog, *Hyla cinerea*. The hybrids show various degrees of intermediacy between the two species. Evidently the construction of farm ponds and disturbances around developing communities, together with the spread of the barking treefrog, are the causes of the breakdown of the isolating mechanisms that formerly prevented hybridization of these species.

Barking treefrogs make excellent temporary pets, although we do not encourage keeping them for extended periods of time. Some captives readily take food such as earthworms and small insects and do well in fairly dry enclosures so long as free water is available in a dish or bowl. Individuals kept indoors will sometimes bury themselves and disappear over winter as if passing through a natural dormancy period. They do not withstand extensive handling. Also, because most treefrogs possess some mild toxicity in their skin, one should take care not to rub one's eyes after handling any treefrog.

Although the barking treefrog appears to be an adaptable frog capable of colonizing many new areas, it remains to be seen how future development will affect the abundance of this anuran. Hopefully, it will remain as a permanent element in Virginia's herpetofauna.



The barking treefrog is much larger than the more common green treefrog.





I Keep Going Back to Big Run

by Gerald Almy

Cotton-white puffs of cumulus clouds dotted the azure sky above the plow-furrowed farmland of the Shenandoah Valley. Two thousand feet above the spring-brightened bottomland, the view was hypnotic.

We forced ourselves to break the spell of the scene's magic. Fish were waiting.

"Almost nine" Jim said as we hoisted lobster red packs and blue sleeping bags onto our shoulders. "Better get a move on it."

We began the descent that would take us across the Appalachian Trail, down to the seldom-fished waters of Virginia's Big Run in the shadow of Rocky Top Mountain. The orange-finned brookies would be hungry after lean winter months. Some flies would probably be coming off. And the water would not be so low that the nervous natives would be impossible to approach, like they are during summer months.

The pastel lime-greens of early spring counterpointed the brown leaf-strewn forest floor and the screaming-blue sky. Sprouting redbud blossoms splashed lavender on the green expanse. The air was thin and fresh and cleared lungs coated with the thick sooty atmosphere left behind in the Nation's Capital.

A chipmunk chattered at us as we walked by his perch on a log. Two whitetail deer froze like marble carvings further down the trail, gazing with piercing glassy eyes at the strangers entering their world.

Yet we didn't feel like aliens. Separated from the city, we regained a feeling of at-homeness which the urban environment could never provide. We felt roots protruding beneath our feet as we tread upon the black forest soil.

Pearl droplets of sweat condensed on our faces by the time we reached the stream. We stopped at the edge of a long slate-bottomed pool edged with dogwood and rhododendron. The path transected the silver riffle below. We splashed the cool spring waters over our faces and smiled in contentment after the tiring three-hour hike.

The stream flowed swift, heavy with the spring flow. But the water was clear and free of silt. A school of trout lay motionless, suspended in the deepest depression of the pool. The brilliant white edging on their fins contrasted with the pebbled-grey stream bottom to give the brookies away. They were large natives — all of them about 10 or 12 inches long. Their pectoral fins undulated gently, but the fish remained immobile in a pack.

This seldom-fished stream in the Blue Ridge is a haven for those seeking native trout.

One darted up and loudly smacked a fluttering caddis fly.

"That's a native for you," I said to Jim, who nodded in response.

We had talked on the way down the mountain about how different a native trout was from a stocked fish—be it a Letort brown, a Snake River rainbow, or a Big Run brookie.

"A native brook trout has more in common with a native brown than he has with a stocked brookie," Jim had said. The brilliant colors, the quick, smashing strikes, the fast, strong fights—the stocked strain of trout could never quite match their native bretheren in these qualities.

We were tempted to try for those brookies, but decided to go further down and set up camp before beginning to fish. We scurried 'possum-like down the poorly marked trail another mile and set up the nylon tent beside a deep pool. A drove of young turkeys foraging in the leaves strutted off nervously as we approached.

Gnats swarmed around us, but were not bothersome, as they seemed satisfied to just fly close by our faces without actually landing. Jim put some lemonade powder in a canteen and filled it with the cold brook water. He handed it to me and I took a long draught. The icy liquid felt good as it trickled down a trail-parched throat.

We took our rods out of their cases and rigged them with trembling fingers. They were short, light bamboo sticks reserved especially for Blue Ridge brookies. The trees and brush that line the stream banks make a long rod a hindrance here. Our leaders were 9 feet, tapering to 6X tippets.

A bright male cardinal perched on a nearby pine bough flashed his scarlet feathers, distracting me as I tried to tie the #18 Adams to the gossamer tippet. Clinch knot finally snugged against the bronzed eye of the hook, I started working upstream from the camp pool. Jim walked downstream to cover the water below and fish his way upstream.

As usual, winter-slowed reactions needed some sharpening before I could strike quickly enough for the nervous wild trout. Two small fish that took the Adams as soon as it touched the water were missed on successive casts.

I stopped to calm myself. It was an easy run to fish. A straight upstream S-cast allowed time to cover the

deep part of the glide, where the brookies were lying.

I made another cast and this time was ready. It was a larger trout, and he rolled at the fly, lurching half out of the water, descending with the hook firmly imbedded in the corner of his jaw. It reminded me of the way big Beaverkill browns sometimes take caddis flies.

This was no giant trout, but he fought strong against the slow action rod. The drag screeched sweetly on his first run upstream. From there he made quick dashes to and from the sides of the glide before I worked him in and gently slid out the barbless hook.

I held him for a moment to admire his colors. His back was a mottled olive-grey, shading into a deep tan as it blended towards a glistening, pale orange belly. Bluish-silver rings circled the bright pink spots on his flanks, like tiny halos. Cadmium dots like melted butter speckled the brookie's sides. White borders edged tangerine fins. His beauty was perfect.

I didn't kill him. I knew the stream was crowded with trout and could stand some thinning out. I knew his flesh would be bright salmon-pink and tasty when fried over a wood fire. I had taken others before and would take others again. But I didn't kill the trout. Maybe Jim would keep some fish for dinner.

I fished upstream, dropping my fly lightly in every likely run and pool. Dogwoods, pine, fir, and oak leaned protectively over the water, shading the edges and making a straight upstream check-cast the only effective approach. Most pools afforded several fish; one even yielded five of the sparkling brook trout, including a deep-bodied 12-incher. But then, curiously, other stretches of water that looked equally inviting showed no signs of life.

Some small grey mayflies emerged sporadically, and as the sun crept lower in the sky a few large yellow drakes floated down the gushing riffles. They looked clumsy and incongruous on the tiny mountain stream. But the trout didn't think so. They grabbed

No other fish can match the beauty of the native brook trout.



them eagerly, before the bulky ephemerids could dry their wings and flee to the shelter of shoreline shrubbery.

The burnt-orange sun ducked swiftly behind Brown Mountain, so I headed back toward camp. My body felt a peaceful tiredness. I was satisfied and calm as I made my way through the darkening forest. When I got back, I saw Jim crouching on a rock at the tail of the camp pool, like a mountain lion poised on a limb. I knew he must be stalking a good trout, so I approached the upper end cautiously, well back from the water.

"There's a beauty in there. You see him?" he called in a hushed voice.

I scanned the water and finally spotted the large dark shadow near the center of the pool. I nodded to Jim. The fish was a trophy native brook trout. He dwarfed the two average-sized fish finning beside him.

"I can't interest him in dries," Jim conceded. I asked him if he'd tried skating a spider over him.

"That moved him, but he wouldn't take."

Jim knotted on a weighted nymph now. It was tied with a mixture of olive, brown, and grey fur, with a dark slate wingcase and wood duck tails and legs. He cast the fly smoothly and dropped the nymph about four inches to the side and slightly upstream from the fish.

The trout responded fast to the nymphal offering and Jim set the hook at just the right moment. The fish took off furiously for the head of the pool, raging like a wild stallion, swimming halfway up the falls. He couldn't maintain himself, though, and came back down to fight deep in the upper part of the pool. The trout shook its head angrily and made short spurts along the edge of the stream.

He tried to snag the frail tippet on a sodden log stuck in the crevice of a rock bordering the stream. Jim pried him away gently and cautiously led him in close where he could cradle the trout in his loosely-cupped palm.

It was an odd-looking, yet gorgeous trout. He appeared painfully old — like some ancient, time-twisted gnome. His head was huge, the skin on his paunch loose. Jim released him to die in the quietude of old age, as he surely soon must.

We picked up some dry branches and sticks and I built a fire. The woodsmoke scent wafted sweetly in the cool silence of the evening air. The golden, blue-edged flames crackled and lapped hungrily at the dry branches. Jim fried potatoes, onions, and spam as the fire mellowed, and coffee gurgled aromatically in a dented black pot.

We watched in silence as darkness settled, like a thickening black veil over the rippling stream.



Growing Up Outdoors

by Sandy Coleman

The Barn Owl

When Dracula refers to the “children of the night,” one of the creatures of which he is speaking must be the barn owl.

With their preference for old churches and barns as homes, the barn owl is likely to give anyone not expecting it a bad shock when it flies silently past them — a ghostly white in the gloom of night. The feeling is intensified when one hears the barn owl’s eerie, long shrieks.

The barn owl is a resident of most of the world and he is, indeed, present in the Old Dominion. Although they prefer open wooded land, they can be found everywhere. One pair resides in one of the towers of Washington’s Smithsonian Institution.

The barn owl hunts nightly, flying silently several yards above the ground and silently landing on its prey. By examining pellets of food waste eliminated by the barn owl, biologists have been able to determine that about 95% of the bird’s diet consists of rodents. This puts paid to the rumor that the barn owl is an enemy of the farmer, something that was often thought in times past. The barn owl, as with most creatures, has his place in the balance of nature.

Sometimes the barn owl may be seen in daylight, but most often he emerges from his nest at twilight. With their white plumage, they are easy to see, flying about 15 feet above the ground, with rapid, long wing beats. When he finds his prey, he takes it back to his nest. He is a deadly hunter. The structure of his wings insures that he is silent in his attack, so that his victim has no warning. His sight is keen — so keen, in fact, that it is estimated to be about 100 times as strong as that of man. Additionally, the barn owl has a well-developed sense of hearing. All of these factors help the barn owl to be a formidable adversary.

Between April and July piles of rodents can frequently be found around the nest of the barn owl. Those who have studied the bird know that in that nest there is a pair about to breed. The male barn owl collects food for the female and will store it until she is ready for it. The eggs are laid on a pile of pellets and there are usually four to seven white eggs. However, though this is the average,

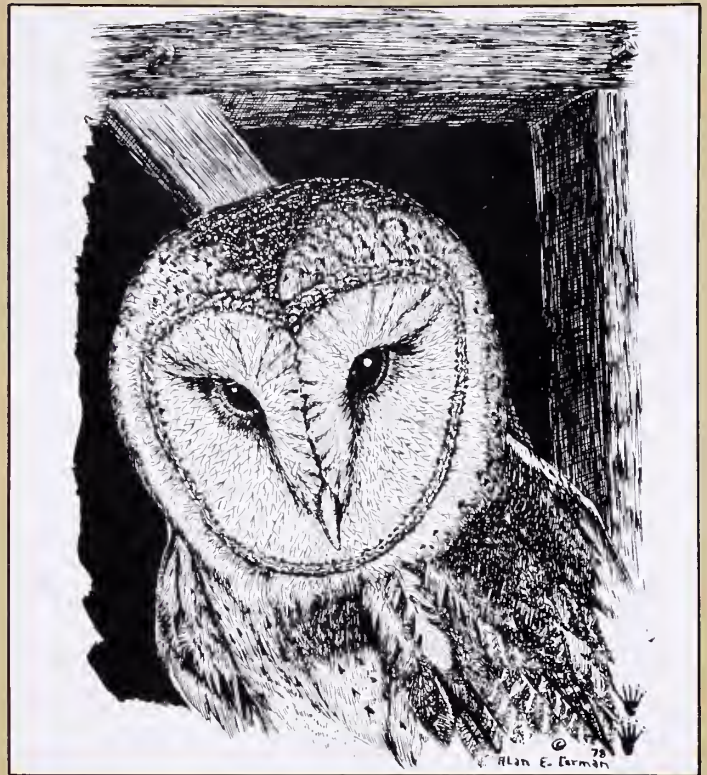


Illustration by Alan Carman

according to many experts there have been as many as eleven laid by one pair.

The female barn owl will sit on the eggs for about five weeks alone. It is the task of the male to feed her during this critical time.

One interesting feature of the barn owl is that the eggs develop at different times as the female will hatch the first egg as soon as it is laid, and then in turn go on to the others. The chicks will leave the nest somewhere between the time that they are nine to twelve weeks old.

The owlets are covered with soft white down. It will be some time until they develop their distinctive feathering that makes the barn owl one of the most beautiful of birds.

Hunting does not come naturally to the young owls. They learn largely through a process of trial and error the effective hunting technique typical of their species. Unfortunately, many of the juveniles do not survive this learning process. Those that do are the best hunters.

Remember if you ever happen on a barn owl on his nightly rounds, don’t disturb him. It is against the law in Virginia to disturb or remove the nest of one of these magnificent birds.

On the Waterfront

Edited by Capt. James N. Kerrick

Good Lubricant Helps Outboards



Outboard motor owners who save pennies at the pump when selecting lubricant may experience decreased performance and economy as well as damage the motor's internal parts.

The lubricant used in today's two-cycle engines differs from the oil used in four-cycle engines. Many two-cycle oils contain no ash-forming metallic additives, which may cause pre-ignition problems resulting in scoring and scuffing of the piston and cylinder walls.

Most of the two-cycle oils contain a rust inhibitor to help protect motor parts, and a diluent to improve the mixability with the gasoline, especially at low temperatures.

One of the more serious mistakes a boater can make is to use automotive oil in his outboard engine. The oil is not designed for the two-cycle powerheads found in outboards, and its metallic additives would leave undesirable deposits on internal engine parts, affecting combustion characteristics and lubrication.

Ever since outboard two-cycle motors were introduced, marine engineers have been working at reducing the amount of lubricant needed in each tankful of gasoline.

The fuel/oil ratio has improved to the point where motor manufacturers now recommend a 50 to 1 fuel to oil ratio in their engines. The advantage of less lubricant per tankful is more economical operation without loss of power, as well as less smoke and sparkplug fouling.

Research is continuing on improved oils, which will further reduce the amount of oil per gallon to lubricate two-cycle engines.

Other factors that have helped decrease the amount of oil required in two-cycle engines, include: the advent of the molybdenum-faced piston ring, improved lubrication system, application of tin plating to the piston skirts, and improved bearing qualities.

Look For BIA Approved Oils

There are numerous brands of two-cycle outboard motor oil on the market. The wise buyer will purchase only those lubricants bearing the Boating Industry of America (BIA) certification approval.

To be BIA-certified, an oil must undergo several tests by either the Southwest Research Institute, the Automotive Research Association, or Nynas Petroleum Test Laboratories in Sweden.

Howard Pollari, a Johnson engineer who helped develop the tests, said the only way an owner can be certain he is buying a quality oil that will help his engine run smoothly, is to look for the BIA certification mark on the can.

The oil receives three engine and two bench tests. Areas studied in the engine test deal with lubrication qualities, cleanliness and pre-ignition tendencies.

The bench tests check the mixability of the lubricant with gasoline and its ability to resist corrosion.

Johnson began its research into two-cycle oils as a service to its customers. Its engineers wanted to provide the best oil available in order to help maintain longer engine life.

Johnson Outboards' "recipe" is available upon request. The oil contains 650 neutral, bright stock, and amide-type detergent-



dispersent, an ashless rust inhibitor, an ashless coupling agent, and blue dye.

The 650 neutral was selected due to its ability to offer excellent lubrication characteristics. Lighter weight oils did not offer the same degree of lubrication protection under adverse operating conditions. Bright stock was added to improve the resistance of the piston to scuffing and seizing.

The ashless amide-type detergent-dispersent was selected on the basis of control of deposit characteristics, ring-sticking, and varnish on the piston skirt.

Corrosion Inhibitor Helps In Storage

The inclusion of an ashless corrosion inhibitor was necessary to produce satisfactory corrosion control during periods of engine storage. By use of the BIA rust test, tank-testing and Florida boat testing, Johnson engineers determined that the recipe without a corrosion inhibitor would not yield satisfactory corrosion protection. Its inclusion did not affect the performance of the lubricant.

Incorporation of the ashless coupling agent has produced a stable recipe for oil with moisture present.

The blue dye was added so owners could see if the gas already contained lubricant.

High-quality two-cycle lubricant gives owners the following benefits:

Improved lubrication — Greater engine life with reduced maintenance and repair. Bearings, piston rings, pistons and seals will have a longer life expectancy, especially under adverse and high-speed running conditions.

Reduced combustion chamber deposits — Reduction in

combustion chamber deposits will help maintain a more efficiently running motor. Over a longer period of time "like new" fuel economy and power will be maintained.

Less piston ring sticking — Better performance in terms of consistent idling, continued fuel economy, and peak top speed power.

Minimized piston skirt deposits — Elimination of deposits on pistons means that heat transfer characteristics built into the engine will not be affected. Proper piston-cylinder alignment will be maintained.

Longer sparkplug life — Provides for more dependable and efficient motor operation, as well as reducing the cost of sparkplug replacement.

Rust inhibitor — The motor will have less chance of internal rust in storage.

Good mixability — Mixing readily with gasoline will insure running with proper gas/oil ratio, even in cold weather.

Reduced pre-ignition — An increase in trouble-free use of the motor. Besides the possibility of causing serious damage to the motor, pre-ignition causes loss in efficiency and power.

These benefits are possible with the use of oils containing high-quality base stocks and the addition of the best non-metallic ashless detergents and ashless rust inhibitors.

Whether the boater uses his outboard for work or play, it's important to use the proper two-cycle oil. It will pay off in less maintenance costs as well as better performance.

For additional information contact your local Johnson Dealer or write Johnson Outboards, 200 Sea Horse Drive, Waukegan, Illinois 60085.

Super Sunfish

The redear is the fastest growing of Virginia's panfishes.

by Mitchell D. Norman,
Fish Biologist, Commission of Game and Inland Fisheries

The redear sunfish, *Lepomis microlophus*, is an excellent sportfish which any angler should be pleased to have in his creel. The redear is perhaps more commonly known as shellcracker, a name derived from its habit of eating snails. The native range of the redear includes most of the Southeastern U.S., however, the fish has been widely introduced into other states.

The redear grows faster than related panfishes such as bluegill (bream) or pumpkinseed (yellowbelly). In Virginia waters, the redear may grow three to five inches during its first year. The fish will usually measure six to eight inches at the completion of its second growing season. Redear weighing two pounds, which is very large for panfishes, are not uncommon. The state record is four pounds, eight ounces. The redear is a hard fighter when hooked, and its flesh is quite tasty. During spawning season, the bedding males can be readily captured by hook and line. The redear is also susceptible to angling during other times of the year, provided a school can be located. For these reasons, the redear is quite popular with fishermen.

However, relatively few people are successful redear fishermen. Perhaps most anglers try to catch redear as they would bluegill. This is a mistake since the feeding habits of these two fishes are dissimilar. The bluegill is more opportunistic; it will feed anywhere from the surface to the bottom of the water. On the other hand, the redear is strictly a bottom feeder. Fly casting, which can be highly successful for bluegill, will seldom capture a redear.

One fisherman who has learned the art and science of successful redear fishing is George LaFrance of Hampton. Mr. LaFrance has been an ardent fisherman almost all of his life. He was fishing without adult assistance at the early age of five years. His interest in fishing was so strong that his parents could not keep him away from the water. This was during the depression, and since his parents could not afford fishing equipment, they provided him with a safety pin, a string, and a slender pole. Since those early days and modest equipment, LaFrance has fished extensively and perfected his skills to those of a professional.

LaFrance's favorite "redeer fishing place" is Lake Powell, located on Rte. 31 South of Williamsburg. Lake Powell has had a reputation for excellent fishing for many years. The large bluegill, redear and crappie

caught at the lake have lured many fishermen back time after time. Some fishermen have been visiting Lake Powell for more than fifty years. Undoubtedly, the solitude and scenery of the lake attract many fishermen, but it is the high quality fishing which brings them back year after year.

LaFrance's fish citation record from Lake Powell attests the excellent fishing in the lake as well as his fishing expertise. In the past three years, LaFrance has caught almost a hundred citation fish from Lake Powell. Although most of these citations have been for redear, he has also caught citation black crappie and bluegill. His record for the most citation redear in a single day is nine. On another fishing trip, he caught eight citation redear. On one occasion last spring, LaFrance caught seventeen redear weighing fifteen ounces each — just one ounce short of citation. That must have been heartbreaking!

I recently had the opportunity to take a fishing trip on Lake Powell with Mr. LaFrance. He shared with me some of his secrets for catching redear.

Season of the year — Redear fishing is best during the spring when the fish are concentrated on their spawning beds. During other periods of the year, the redear are infrequently caught by anglers, even LaFrance. Studies have shown that after spawning the redear move out of the shallow shoreline area to deeper water where they concentrate in schools. Since these schools are seldom found by anglers, few redear are captured after the spring bonanza. However, if these schools can be located, the fishing can be fantastic. According to LaFrance, the redear become less likely to bite as the spawning season progresses. The fish appear to be impatient to spawn and are not interested in feeding. Another of "LaFrance's fishing axioms" pertains to the influence of the moon. He has observed that redear fishing is especially productive if there is a full moon. Interestingly, this observation is supported by scientific studies in Florida. LaFrance has also noted that redear fishing is better after a few days of warm weather. This is expected since the higher water temperature would induce more spawning.

Spawning location — Redear in Lake Powell prefer to spawn in water six inches deep or less. This poses a definite problem for the fisherman in getting his bait



to the redear. The shoreline of the lake is heavily forested, and low hanging tree limbs extend out over the lake. Cypress and tupelo gum trees are abundant in the shallow water. Myrtle bushes overlap the lake and form an almost impenetrable barrier. Emergent aquatic vegetation (primarily spatterdock) only compounds the problem of casting to the spawning redear. Considerable skill with the rod and reel is required for proper placement of the hook. This is where Mr. LaFrance has the advantage over the novice angler and probably accounts in large part for his success. During our fishing trip, I watched LaFrance consistently cast into some very difficult places. With ease and grace, he cast into places smaller than a volley ball. The difficulty of this was compounded by the lack of weight on the line. LaFrance believes the redear know where to go so the fishermen are not likely to bother them. After fishing with him one day, I believe it!

Time of Day — LaFrance has observed that the redear in Lake Powell do not favor any particular time of the day to excite the fishermen. Sometimes fishing is best during the afternoon, but that is not true every day. As a general rule, the redear bite when they are ready, regardless of the clock. A successful fisherman must have patience and endurance to stay with it.

Bait — LaFrance prefers night crawlers for redear fishing. After he has found a school of redear and enticed them to biting, he may switch to redworms since these are easier to obtain than night crawlers. LaFrance raises his own redworms and catches the night crawlers on rainy nights. With the assistance of his children, it is not uncommon for him to collect several hundred night crawlers on a good rainy night. The abundance of worms is a necessity to LaFrance as he often uses several hundred worms on a single fishing trip. Another bait trick is to use a big "gob" of worms on the hook. LaFrance has learned that redear are more likely to accept the bait if it includes several worms. The worms are hooked about one-third of their body length. This enables the worms to crawl about on the lake bottom. A worm must look and act like a worm to entice a redear to take it.

Tackle — Like most dedicated fishermen, LaFrance uses a variety of rods and reels. He prefers light weight equipment which shows a stronger response to

the fish's bite. The line is six pound test and yellow in color. Redear usually do not take the bait with gusto. When the fish bites, a slight twitch of the line may be all that is noticeable to the fisherman. A successful fisherman must be able to detect this slight twitch for proper timing in setting the hook. The yellow colored line aids in this detection.

Regarding hook size for redear fishing, LaFrance prefers a No. 1. This may seem large to some fishermen, but LaFrance contends that redear have a large mouth and require a large hook. The sharpness of the hook is also very important. LaFrance carries a small file in his tackle box to sharpen each hook before using it. He tests the sharpness on his fingernail. The hook is sharp enough only when it digs into the nail readily as it is drawn across the nail.

LaFrance does not use any weight on his line since this would reduce the worm action which must be as natural as possible to induce the the redear.

Of course, a bobber on the line for this type of fishing would be counter-productive as redear are bottom feeders. The bait must settle to the bottom and be permitted to move about. A bobber would only hamper the worm action even if the line allowed the bait to reach the bottom.

Casting tips — Spawning redear will not move far to take the bait. A successful fisherman must take the bait to the redear. So, the first hurdle is to get the bait under the tree limbs and around the tree trunks and cypress knees and over and into the spatterdock to where the redear are spawning. After this formidable task has been accomplished (which will usually require several casts for most of us), the rest of the activity is up to the worm and the fish. All the fisherman has to do is be patient. Never reel in the line after the cast unless you plan to cast again. Let the worm move itself. Pulling the bait across the bottom will collect moss on the baited hook and make it look less realistic to the fish.

Another important factor in catching redear is patience, and a lot of that is required. As LaFrance points out, the task of luring the redear to bait can be tough — especially when one can see the large redear in the shallow water. However, the reward is well worth the effort. For a panfish, the redear put up a good fight. When they are biting, the activity can be fast and furious.

Face to Face with the Eagle

Studies are underway to help better understand the nesting habits of Chesapeake Bay eagles.

by Craig Koppie

The Chesapeake Bay is a region of ecological importance to man, but of possibly greater significance to wildlife communities. Through the years, the Chesapeake has provided an endless habitat for the feeding and nesting of many bird species.

Due to the physical geography of the bay, it has an attraction to the Bald Eagle. This large sea eagle, an endangered species, has established a breeding site in the Chesapeake and is now believed to have stabilized a population there. Over the decades, state and federal agencies have accounted for several nesting pairs of bald eagles but most are aerial observations and have only concluded a "visual" population count. In other locations nests were known to be active but for unexplained reasons were abandoned during the earlier part of nesting. To better understand the Chesapeake Bay bald eagle population a need for research had been proposed through the co-ordination of the National Wildlife Federation with representatives of the U.S. Fish and Wildlife Service (USFWS), the Delaware Department of Natural Resources and Environmental Control, the Maryland Wildlife Administration, the Virginia State Commission of Game and Inland Fisheries, and members of the Audubon Naturalist Society.

After many months of evaluation, a research team had been organized (1977) through the Raptor Information Center, a division of the National Wildlife Federation. The purpose of the project was to identify the problems of the nesting bald eagle and to evaluate any fluctuation within the eagle population of the Chesapeake Bay. In order to determine this, an intensive survey was conducted to identify the critical nesting habitat of the eagle and



To band the birds, the researcher must climb tall trees to reach the nest



Surprisingly, the eaglets do not use their strong beaks against the human intruders. Talons, however, are another matter.



Data used in this review — courtesy of the Raptor Information Center, c/o National Wildlife Federation

to collect data at each nest; such as prey remains, egg shells, etc. which might later help to explain nest failures. The second phase of the project consisted of marking the nestlings with the use of migratory leg bands affixed with a color-vinyl marker. In this manner, the young eagles can be visually identified as belonging to the Chesapeake population. Each tag is lettered ("M" for Maryland, "V" for Virginia and "D" for Delaware) which will insure a quick identity of the individual. Another device used for identification of the young, after fledging, was the use of a radio transmitter introduced by Dr. Mitchell Byrd (College of William and Mary). Dr. Byrd and his graduate students are monitoring several nests in this manner and with the help of the banding crew were able to place a television camera viewing one of the nests on the lower end of the Chesapeake. The third and final phase of the project consisted of egg transplants through the consultations of Stanley Wiemeyer from the Patuxent Wildlife Research Center in Maryland. A technique like this would help to increase the productivity level and possibly increase the Bay population over a period of years. In areas that were known to

fail, "good" eggs would be taken from the Centers captive bred pair and transplanted into the "wild" nest in exchange for the unproductive egg. The non-viable egg would be checked for pollutants to determine the cause of failure. In 1977, the first egg transplant was attempted and proved to be successful at Mason's Neck Wildlife Refuge in Virginia. The following year (1978) two eggs were transplanted but both were unsuccessful. Later in the spring, two eaglets born in captivity were introduced into a Virginia nest. But because of their differences in age, the "wild" chick of that nest, was placed in a second nest with a chick of the same age. The two captive eaglets were placed in the empty nest and observed, hoping that there would be an early acceptance by the adult eagles. Later in the day the eagles were seen feeding their "new" young. In the third year (1979), three captive chicks were introduced into two Virginia nests. A wild eaglet was placed in a second nest with the young of that nest, while two of the captive eaglets were placed in the empty nest. The third captive eaglet was placed in a nest that had one individual of the same age. The eaglet transplants were successful and all of the young

fledged. Within the three years of the project, human efforts were responsible for introducing six fledgling eagles into the Chesapeake population.

Although there seems to be quite a few bald eagles in the Chesapeake, only 50% of the nesting pairs produce young. In 1977, a total of 77 active nests were found but only 40 nests proved successful, yielding a success rate of 52%. In 1978 and 1979 there were 85 active nests found, with 41 nests producing young thus yielding a 48% success rate; (both years). It has also been found that the shores of Maryland have a higher density of eagles than in Virginia, both in the number of nests and the number of young produced.

The lower density ratio in Virginia can be determined through human interference. In many areas there is evidence of "clear cutting" either for the use of land development or logging practices. Most eagles will tolerate disturbances, but as they intensify the adult eagles may leave the area entirely. In other circumstances, the "pair" may build a nest but cannot produce young because of the high level of pollutants incorporated in the female. Either the eggs crack due to thinning or the level of contaminants is too high for the survival of the embryo.

VIRGINIA WILDLIFE

Outdoor Notebook

The Party's Over

"Help preserve wildlife. Give a party tonight," read the bumper sticker on the car in front of me. I burst out laughing. Suddenly I had a sobering thought. I had preserved my wildlife at Gunston Hall Plantation all last summer with a party nearly every night. And it had to stop!

I remembered the June evening I had been quietly sitting in one of our gazebos and became aware of some movement in the flower garden below. To my astonishment, I saw a rabbit making his way down the path with a big woodchuck walking a foot or so directly behind him. I crept silently behind a boxwood hedge where I could keep them in view but I already suspected the worst. The rabbit stopped off at my Salad Bar in one garden while the woodchuck continued on to a Strawberry Festival. So that was who was eating my strawberries even before they could fully ripen!

Just a city girl, I was transplanted to the country when my husband retired from the Navy to become director of Gunston Hall, George Mason's historic home in Lorton. I didn't want to kill the animals who were "partying" in our vegetable gardens and orchards. I couldn't very well put up a fence and run an electrified strand of wire along it because it didn't fit in with the colonial atmosphere we were presenting. But the deer, rabbits, woodchucks, raccoons, moles and other animals were a problem and I decided some research was in order on how to keep them away. I had been willing to share my garden with them but now they were getting to be a little greedy. Consulting with would-be experts and some reading led to some hilarious solutions, along with some serious ones.

One woman told me she wanted to keep the deer from browsing the young trees in her orchard. After reading that the smell of lion dung would frighten them away she called the zoo and asked if she could have some. "Sure," they said, "All you want. Just bring as many garbage cans as you can." So she drove her station wagon to the zoo and was soon driving home with four or five cans of the precious stuff to put around the perimeter of her orchard. She claims it worked. Incidentally, her teenage son didn't ask to use the station wagon for two weeks!

If you haven't a zoo in your area, you



can hang net bags of mothballs on some of your trees. To protect the mothballs from the weather, put a plastic cup over the top. You can scatter mothballs around your garden but they must be kept away from growing food.

Moles are repelled by mothballs, so pour some down their tunnels. Just putting some thorny rose canes in their tunnels is said to discourage them. Since moles are very sensitive to vibrations, a little windmill placed at the entrance to their tunnels will make life miserable for them. Moles hate castor beans as much as children hate castor oil and it's reported a planting of castor beans will keep them away.

Some people claim the barber shop route is the way to go to deter the wildlife. Small net bags filled with human hair are supposed to keep deer and other animals at bay. One man told me his barber had provided him with hair to scatter around the grass. All I could think of was that a little breeze could give you hairy strawberries!

How about a pumpkin or squash fence of interlaced vines around your sweetcorn patch? Raccoons and woodchucks are supposed to be afraid to go through this Maginot Line. A sprinkling of blood meal is supposed to deter animals. They don't like the scent and since it is excel-

lent fertilizer, it will be good for your garden if you don't put it close enough to burn the plants.

You can spread chicken wire on the ground and weight it down with stones until the plants are up and can hold their own. In England I noticed the gardeners lay sticks, rose canes and twigs all over a newly planted garden to prevent the seeds, bulbs and plants from being eaten by hungry varmints.

One of the funniest solutions I came across was the portable transistor radio. That's right! It's supposed to be especially effective in a sweetcorn patch. If you don't want uninvited guests such as raccoons (and if your patch is far enough away from your house or your neighbor's so no human is disturbed), hang your radio amongst the cornstalks and tune it in loud to an all-night station that plays rock and roll from dusk to dawn. It must be an all-night station, however.

Of course, there's still live-trapping and exile, repellent sprays, scarecrows and other things to be considered. And if you're wondering what I intend to use—well, I'm making calls to the zoo and barber shop and I've got my mothballs, windmills, castor beans, pumpkin and squash seeds, blood meal, chicken wire, transistor radio all ready. Yes, critters, the party's over!—Jeanne Price



Weather Available from Five Locations

When the National Weather Service added weather broadcasts from stations in Lynchburg and Roanoke, during 1979 it brought to five the number of stations throughout the Commonwealth that provide this type of service. The information broadcast over these stations consists of continuous transmissions of weather conditions existent usually within approximately 40 miles of the station location. Additionally, the broadcasts include a description of the forecast for the immediate area and certain special reports for any special area peculiar to the geographic location of that station. The five-minute long weather-casts are updated every six hours. An exception to this would be in the event of a sudden change in the weather or the development of severe weather conditions. Under these circumstances the broadcast would be updated as required to keep the public informed.

The feeling among sportsmen and boaters throughout the state is that this service is invaluable in view of the safety aspect which this type of information provides. Listeners interested in receiving these broadcasts must have equipment capable of receiving the broadcasts from the station locations and at the frequencies listed below.

Radios capable of receiving these broadcasts are available from a number of different manufacturers and range in design from table models to pocket size. The small size is nicely suited for use by fishermen and hunters as they take a minimum of space, yet provide ample strength for adequate reception.

The stations in Virginia and the frequencies on which they broadcast are as follows: Richmond (162.475 MHz); Manassas (162.55 MHz); Lynchburg (162.55 MHz). Note: Lynchburg broadcasts from 6 a.m. until 6 p.m., after which Lynchburg weather can be heard on Roanoke (162.475 MHz) and Norfolk (162.55 MHz).

Winners of Maymont Photo Contest

Winning entries have been selected in the first annual Nature Photography Contest sponsored by the Maymont Foundation's Parsons Nature Center. Thirty-three prints in both black and white and color, and seventeen slides were chosen from nearly 150 submissions by the three-member judging panel. The winning prints will be on exhibit at the Nature Center through April 27.

The contest and exhibit was coordinated by Melissa Ann Gaulding, Nature Center Exhibits Specialist. Judges were Dale Quarterman (VCU Photo Dept) Sam Banks (Richmond Humanities Center) and Francis N. Satterlee (Virginia Game Commission).

Examples of some of the winning submissions are shown here. Cindy Hicks of Richmond shot the photo of the peeking squirrel. The two moods of the tree reflected in the lake were captured by Ben Greenberg from Midlothian.



Fall Steel Shot Zones Proposal

Washington D.C. (U.S. Fish & Wildlife Service). . . Virginia and twelve other member states in the Atlantic Flyway have areas which will be part of the zones proposed for steel shot use for the 1980 Fall Waterfowl Hunting Season. Similar areas are also being proposed for the states in the Mississippi, Central and Pacific Flyways with 29 states in all being affected.

The proposal is part of a continuing effort to reduce lead poisoning in waterfowl. Birds frequently die of lead poisoning after eating spent lead shotgun pellets, which they mistake for seeds or grit.

Steel shot is not toxic to waterfowl.

Areas are identified for steel shot use on the basis of high concentrations of lead shot deposited by waterfowl hunters and by the number of birds found to have eaten lead shot. About 20 percent of the waterfowl harvest in the United States occurs within the zones that have been proposed for the next waterfowl hunting season. The proposed steel zones for next fall are identical to the zones designated for the 1979-80 waterfowl season. Detailed descriptions of the zones will be listed in press releases to be issued by the USFWS regional offices.

Spring Wildflower Pilgrimage

The Science Museum Association of Roanoke Valley will hold their 11th Annual Spring Wildflower Pilgrimage to be held in the Roanoke area on April 25, 26 & 27, 1980. The Pilgrimage includes lectures, wildflower walks and an art show. Keynote speakers will be Dr. Arnold Korchmal and Dr. John B. Ebinger.

Dr. Korchmal, author and authority on useful and medicinal plants, is with the United States Forestry Service Southeast Research Station. Dr. Ebinger, an expert on azaleas and rhododendrons, is with the Eastern Illinois University.

Last year's Pilgrimage attracted more than 1150 participants.

For further information, write: Science Museum Association of Roanoke Valley, 2323 Overlook Road, N.E., Roanoke, Virginia 24012 — Phone (703) 563-2891.

Our Mistake

Credit was inadvertently given to the Virginia Division of Forestry for a photo that appeared on page 33 of our January issue. Credit should have been given to the U.S. Forest Service.

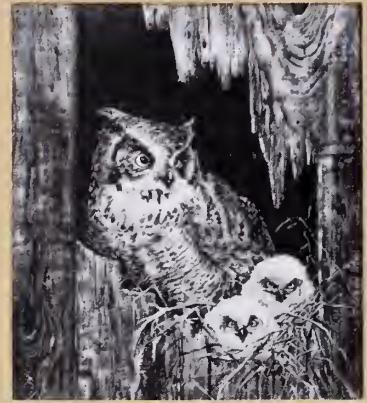


Boating Access

If you and your boat are new to Virginia waters, or if you just don't think that you know as much as you should about the water sports in our state, the Game Commission has a free publication that will be of great help in getting to know Virginia's waterways.

Boating Access to Virginia Waters lists all boat ramps currently operated by the Game Commission, as well as a recent list of marina facilities available in the state. Additionally, a map of state waterways is included.

For your free copy write: Boating Access, P.O. Box 11104, Richmond, Virginia, 23230.



Take these owls home! Now you can decorate your home or office with a full color print of Judy Moos Welton's Great Horned Owl Family. This 16 X 20 inch print is a limited edition of only 300 and comes to you signed and numbered by the artist. Get your print by sending \$40.00 to Judy Moos Welton, 14708 Dunbarton Drive, Upper Marlboro, Maryland 20870.

Coming Next Month

RELEASING FISH

Gerald Almy Tells How and When
VIRGINIA'S CHANGING TOPOGRAPHY

How it Was, Is and Will Be

ELECTRICAL STORMS

Safe Ways to Deal with a Warm Weather Hazard

Virginia
Wildlife

BY SUBSCRIBING TO VIRGINIA WILDLIFE, YOU SAVE 50% OFF THE NEWSSTAND PRICE! SEND YOUR CHECK OR MONEY ORDER TO:

Virginia Wildlife
P.O. Box 11104
Richmond, Virginia 23230

\$5.00 FOR 1 YEAR OR \$12.50 FOR 3 YEARS

Name _____ New _____

Address _____ Renewal _____

City _____ State _____ Zip _____

Allow 6-8 weeks for delivery.

Credit Warden No. _____

It Appears to Me

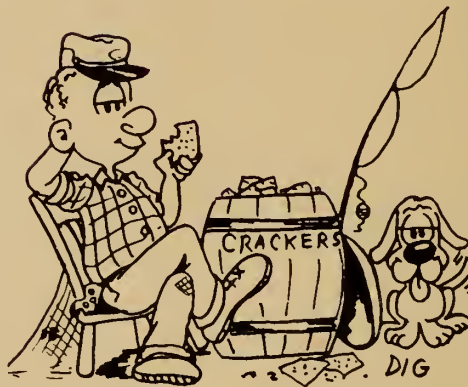
by Curly

...A PERSON OUGHT TO HAVE ONE

From time to time we have offered suggestions on how to save energy, money, time and a host of other good things. Some of these ideas were ours and some were from a wide variety of folks from all walks of life. Recently I ran across some tips about saving gasoline and at this point in our race to keep pace with the price increases which come almost daily, tips like these are really opporchancity. Take, for example, the coming warm weather and the temptation to use your car air conditioner. Instead, leave it off and open the windows, right? . . . wrong! The air resistance created by the open windows takes about two horsepower compared to the ONE horsepower to operate the air conditioner.

Look at another fact. Fifty-five is the legal speed limit. By going that speed you are not only abiding by the law but, by driving at 55 in comparison to 70 mph, you are saving about 20% more gasoline. The Atlantic Richfield Company has published a booklet, free for the asking, which is jam-packed with tips like those mentioned above and many others. To get your copy and begin saving the wear and tear on your wallet, write and request "Drive For Conservation," Department C, P.O. Box 30181, Los Angeles, California 90030.

Although "A Landowner's Guide: Wildlife Habitat Management for Vermont Woodlands" was written about the areas north and east of the Commonwealth, much of the sage advice that is offered pertains to land in general and is very useful. This is especially true if you have a private wood lot or are planning to get into the tree raising business. The basic aim of the publication is to give you, as a landowner, some better insight into the habitat requirements of wildlife. The booklet



is free from the Department of Fish and Game, Agency of Environmental Conservation, Montpelier, Vermont 05602.

When it comes to doing things up right, I reckon that the Smithsonian Institution would be hard to beat. This has never been more true in regard to what they have done for folks with a variety of disabilities. Those good people, in cooperation with the President's Committee on The Employment of The Handicapped, have just recently published a "Guide for Disabled People" which contains such a wealth of information that it is hard to believe. Examples of what is available include such details as where the stairless entrances are at the Museum of Natural History, how to arrange for sign language tours of the Art Galleries, to just where the drinking fountains for the handicapped are situated.

Single copies of the publications are free by requesting them from the Smithsonian's Visitor Information and Associates Reception Center, Washington D.C. 20560, the President's Committee on Employment of The Handicapped, Washington D.C. 20210 or may be obtained by requesting them at the numerous in-

formation desks at the Smithsonian. They are also available by requesting them through the (TTY) Teletype number 202/381-4448 at the Smithsonian.

...FOR YOUR BOOKSHELF

Although it is true that the annual "Biggie" in New Orleans is Mardi Gras, other times of the year are just as charming there, as well as throughout the south. In fact, a leisurely look at Dixie might even be more to your liking. A recently published book by Burt Franklin & Co. *Country Inns, Lodges and Historic Hotels of The South* is just what you need to help you avoid the plastic-sameness of the modern monstrosities and enable you to soak up the charm of some more out-of-the-way lodging. An example of one of many places described will give some insight pertaining to a little-known but elegant place in New Orleans, "Ursuline Guest House, 708 Rue des Ursulines, is the heart of Vieux Carre, one block from the world-famous Bourbon Street. . . the Creole cottage and its two-story slave quarters were built in the 1780's and are just a few steps away from some of the best food in the world and most of the French Quarter's attractions. . ." This paperback sells for \$3.95, describes accommodations in 11 states from Virginia to Texas, and is a dandy.

...AND THEN

For years I have promised myself that I would sit down and make a list of things that I like, things that, when I think about them, make my ole heart sing. I reckon my list would get right long. . . certainly there is not room in this space for it and you probably wouldn't be interested. But you know, it really ain't such a bad idea for all of us to just take the time to jot down what makes us happy and to thank our Maker for His many blessings.

In Nature's Garden

BY ELIZABETH MURRAY



The Wild Geranium



Illustrated by Lucile Walton

We are very lucky here in our wild member of the geranium or cranesbill family, Geraniaceae. The many cultivated members (mostly belonging to the genus *Pelargonium*) of the family are not nearly so attractive as the little *Geranium maculatum*, the wild or spotted geranium which flowers in woods, thickets and meadows in the Virginia mountains and Piedmont in April, May and June.

The Geraniaceae is a family of dicotyledona, in our area all herbaceous, with perfect, usually regular flowers and flower parts arranged in fives. The ovary of each flower is deeply lobed with one seed in each ovule. Styles are elongated resembling the bill of a bird, hence the common alternate name, cranesbill. The word geranium comes from the greek word *geranos* meaning crane. When the fruit is ripe, the seeds are shot out from the parent plant by a spring mechanism which carries them much further afield than if they had merely dropped out. This is, of course, a very efficient dispersal mechanism.

Our wild cranesbill or geranium, *Geranium maculatum*, grows from a thick rhizome into a plant up to two feet high. The leaves are divided into five lobes, each lobe further dissected at the edges. Flowers are normally rose pink or pale purple, although there is a rare white variety, *forma albiflorum*. The flowers have both male (anthers) and female (stigmas) parts, but

the anthers ripen and actually drop off before the stigmas mature, a good insurance against self-fertilization. The flowers are pollinated by insects, bees and the common sulphur butterflies, which are interested in the nectar at the base of the flower. Minute hairs in the base of the corolla possibly protect this nectar from rain and mechanical disturbance.

The mechanism by which the seeds are shot out from the plant is fascinating. Initially, the styles are all joined together at the top of the ovary. They dry as they develop until suddenly they split apart and coil up like a spring, the force of the coiling sending the seeds shooting out. Studies on a closely related European species showed seeds travelling up to five feet away from the parent plant. If you look at a flower which has matured, you can see the little dried up styles, still attached at their tips, and coiled up from the base.

Although there are several closely related species which now grow wild here, they have been mostly introduced from Europe and Asia and, subsequently, naturalized. *Geranium maculatum* is our only truly native geranium. It has a wide distribution in the eastern United States, growing from Maine down to Georgia, and west to Manitoba, Missouri and Kansas.

By the time the wild geranium is fully out in Virginia, we shall be at the height of our spring, and traveling headlong into summer.



JOHN W. TAYLOR.

The Rose-Breasted Grosbeak

The scenic overlooks along the Skyline Drive offer spectacular views of the Blue Ridge and the surrounding valleys. From these vantage points, one looks down upon lofty oaks and towering hemlocks. And from these lookouts one may often study the rose-breasted grosbeak at close range.

Look for these birds in mid-May, when they have just returned from a winter in the tropics, or in June, when they are nesting, and while the resplendent males are still in full song. Look for them at elevations above 2500 feet as, except during the migration season, in Virginia the rose-breast is a mountain species, summer residents of the hardwood forests that cover the higher slopes of the Blue Ridge and Alleghenies.

During that period in spring and fall when birds that nest farther north are in transit, they may be found across the state, even along the coast. Nine were banded in one day at Kiptopeke near Cape Charles and a dozen have been seen in one day at Chincoteague. There are but two records of winter stragglers, one at Alexandria in December and another at Waynesboro in February.

While on the autumnal journey, rose-breasts are generally silent birds, save for the call-note, a sharp *chik*, like the clicking of two stones together. But during the spring movement they are more vocal, occasionally breaking into song while feeding or resting amid the new green foliage.

It is, however, only on the home nesting territory that the rose-breast is in full song. An accomplished songster, its sweet sonorous caroling is robin-like in character and phrasing. The grosbeak's song is livelier, more sustained and with no hint of the robin's thrush-like melancholy.

Audubon once heard the song at night, along the Mohawk River, and fell under its spell. "The evening was calm and beautiful, the sky sparkled with stars. . . suddenly there burst on my soul the serenade of the rose-breasted bird, so rich, so mellow, so loud in the stillness of the night, that sleep fled from my eye-lids. Never did I enjoy music more."

This grosbeak's plumage is as lovely as its song. The male wears jet black about the head, back and tail, with a white

rump and lower breast and belly. A triangular patch of soft rose-red adorns the upper breast. The wings are black, with spots of white that flash harlequin-like when the bird takes flight. The inner linings of the wings are tinted with the same lovely shade of rose-red as is the breast.

The female is quite different. Flaxen-hued, with dark brown streaking, she has a white stripe over the eye. Her wing linings are yellowish.

It is generally thought that the less colorful plumage of the female serves as camouflage, to make her less conspicuous on the nest. The male rose-breast seems at times to negate this advantage, for he not only incubates the eggs, but even sings on the nest, seeming to flaunt all the rules of safety.

In the Virginia mountains, and throughout its range in the Appalachians, these grosbeaks show a preference for rhododendron thickets for nesting sites. In other parts of its range, the elderberry is a frequent choice.

The nest is a flimsy platform, often so loose and shallow that the eggs may be seen from below. It may be anywhere from five to twenty feet above the ground. Those in our native rhododendron thickets are usually about eight to ten feet up. The three to five pale blue eggs are incubated for nearly two weeks.

The young are fed on both insect and vegetable matter, depending on what is handy. When the nest is placed in an elderberry, there is an abundant supply of berries right at hand. Cherries and other cultivated fruits are favored, as are the seeds of the elm. In spring, the blossoms of the hickory and beech are relished, and they are said to devour large numbers of potato beetles.

Once nesting is completed, the grosbeaks are silent, inconspicuous. After the autumn moult, the males resemble the females, with but a slight trace of the rose upon the breast. By mid-September, nearly all have left for their winter home.

A close relative of the rose-breast, the black-headed grosbeak is a westerner that strays to Virginia many times. A grosbeak in winter is likely to be this species.

Virginia Wildlife Trophy Fish Citation



This award for outstanding angling
achievement is presented to
JOHN Q. ANGLER
for a catch of **5 pounds 2 ounces**

Smallmouth Bass

SATURDAY

MARCH 5, 1977

EXECUTIVE DIRECTOR
CONTEST CHAIRMAN
ANGELINA FARMER, JR. 10000 RICHMOND AVENUE, RICHMOND, VA 23220

THIS NEW THREE-DIMENSIONAL TROPHY FISH CITATION COULD BE YOURS!

THE NEW-STYLE AWARDS ARE NOW AVAILABLE FOR ALL FISH SPECIES LISTED TO THE RIGHT.

CONTEST RULES

Fish must be caught in Virginia waters by legal methods during seasons open for the taking of the species involved.

Fish must be weighed at a public scale that is periodically inspected by the Commonwealth of Virginia.

Photographs are desirable as further proof of authenticity but are not required.

Non-residents as well as residents are eligible for citations if fish are caught under the above conditions.

Applications must be submitted within 60 days of the catch to be eligible.

Record fish must be verified by an employee of the Commission of Game and Inland Fisheries.

1980-1981 CITATION SIZES

Largemouth Bass	8 lbs.	Striped Bass	15 lbs	Other Trout	5 lbs
Smallmouth Bass	4 lbs.	Pickering	4 lbs	Muskellunge	6 lbs
Kentucky Bass	3 lbs.	Walleye	8 lbs.	Northern Pike	6 lbs
Sunfish	1 lb.	Yellow Perch	1 lb	Channel Cat	10 lbs
Rock Bass	1 lb.	Brook or Brown		Flathead Cat	20 lbs
White Bass	2 lbs.	Trout	2 lbs	Carp	20 lbs
White Perch	1 lb.	Tiger Muskie	6 lbs	Gar	10 lbs
Crappie	2 1/2 lbs.	Sauger	3 lbs	Grindle	10 lbs

APPLICATION FOR VIRGINIA FRESHWATER FISH CITATION

Angler's Name (PRINT) _____

Address _____

City _____ State _____ Zip _____

Kind of fish _____ Weight _____ lbs. _____ oz. Length _____ inches

Where caught _____ Date Caught _____

Weighed at _____ (store or other public scales)

Weighing witnessed by _____

How caught — Fly Rod ☐

Signature

Spinning Rod ☐

Address

Casting Rod ☐

Trot Line ☐

Other _____

COMMISSION OF GAME AND INLAND FISHERIES
P.O. BOX 11104, RICHMOND, VIRGINIA 23230

HOW TO
MEASURE
LENGTH

